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**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/350,579	07/08/99	LANG	G 05725.0435-0

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EXAMINER

LIOTT, C

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 10/04/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/350,579

Applicant(s)  
Lang et al.

Examiner  
Caroline D. Liott

Group Art Unit  
1751



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-107 is/are pending in the application.

Of the above, claim(s) 6, 9-13, 32-61, and 84-106 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-5, 7, 8, 14-31, 62-83, and 107 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☒ Claims 1-107 are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Applicant's Preliminary Amendments filed 5/4/00 have been entered.

The instant case contains 107 claims, 22 of which are independent. The claims span 530 pages. There are hair dyeing compositions claims (spanning 98 pages, including 3 independent claims), hair dyeing process claims (spanning 243 pages, including 11 independent claims), and hair dyeing kit claims (spanning 192 pages, including 8 independent claims). Applicant is reminded to avoid submitting an unreasonable number and length of claims, in view of the nature and scope of Applicant's invention and the state of the art, which may obscure the claimed invention. See MPEP 2173.05(n).

***Election Requirement***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-83 and 106-107, drawn to keratin fiber dyeing compositions, classified in class 8, subclass 405+.
- II. Claims 84-97, drawn to keratin fiber dyeing processes, classified in class 8, subclass 405+.
- III. Claims 98-105, drawn to keratin fiber dyeing kits, classified in class 8, subclass 405+.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product

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as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product as claimed can be used in a materially different process such as a process of dyeing a different fiber type, e.g. a synthetic polyamide fiber.

Inventions III and I are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the product as claimed can be made by another and materially apparatus such as a single compartment apparatus or kit, or with multiple kits obtained separately, each of which contain a different component as claimed.

Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as a process of dyeing a different fiber type, e.g. synthetic polyamide fibers.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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This application contains claims directed to the following patentably distinct species of the claimed invention: keratin fiber dyeing compositions and kits which contain, and processes which use, a combination of 1) at least one cationic dye of either formula (I), (II), (III), (III') or (IV), and 2) at least one thickening polymer selected from anionic, nonionic or cationic amphiphilic polymers as defined in claim 1. The cationic dyes and thickening polymers encompass countless structures, each defining a different embodiment of the invention.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Particularly, Applicant is required to elect a dye of formula (I), (II), (III), (III') or (IV), and either a nonionic, anionic or cationic amphiphilic thickening polymer. Currently, claims 1-107 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

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Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Sean Passino on September 14, 2000 a provisional election was made with traverse to prosecute the invention of Group I, hair dyeing compositions which contain a combination of the cationic dyes of formula (I), and the nonionic amphiphilic polymers as defined in claim 1, claims 1-5, 7-8, 14-31, 62-83 and 107. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6, 9-13, 32-61 and 84-106 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Objection to Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the

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following is required: Claim 107 recites that the compositions are in the form of sunscreens. This limitation lacks proper antecedent basis in the specification.

***35 U.S.C. 112 Rejections***

Claims 69, 75, 78 and 107 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 69, 75 and 78 are indefinite for reciting that the claimed composition "is present in an amount sufficient for" either oxidation or lightening direct dyeing because it is unclear in what the composition is present. Clarification is required.

Furthermore, claims 69 and 75 are duplicate claims. Cancellation of one of these claims is required.

Claim 107 is indefinite for reciting that the composition is in the form of a sunscreen. This limitation contradicts the independent claim which recites that the composition is in the form of a keratin fiber dyeing composition. Does the composition merely contain a sunscreen additive? Clarification is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 7-8, 14-19, 24, 31, 62-83 and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Rondeau.

Jones, U.S. Patent No. 6,106,578, teaches thickened hair dyeing compositions which contain one or more dyeing agents, at least 0.1 wt% of a hydrophobically modified nonionic polymer (HNP), at least 0.1 wt% of at least one associative agent, and water, see Abstract and col. 2, lines 61-67. The hair dyeing agents may be permanent, semipermanent, temporary, or mixtures thereof, and may be present in the claimed amounts, see col. 9, lines 42-55. Permanent dyes include oxidation bases and couplers as claimed, wherein color may be developed with an oxidant as claimed, see col. 9, line 57-col. 10, line 12. Semipermanent and temporary dyes include azo dyes, basic dyes, and additional direct dyes as claimed, see col. 10, lines 22-35. The HNP is preferably a fatty alkyl hydroxyethylcellulose derivative or polyethoxylated urethane modified with a fatty chain as claimed (i.e. a nonionic amphiphilic polymer), see col. 4, line 16-col. 5, line 4.



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Jones teaches that the compositions may also contain other additives to enhance the properties of the compositions, and that the compositions have pH's as claimed, see col. 12, lines 15-35 and col. 10, lines 42-44. Jones exemplifies various compositions which contain nonionic amphiphilic polymers, oxidation bases, couplers and oxidants in aqueous mediums as claimed, see Examples. Jones does not teach the specifically claimed cationic direct dyes, or the claimed sunscreens.

Rondeau, U.S. Patent No. 5,879,412, teaches compositions for dyeing hair which contain at least one oxidation base chosen from p-phenylenediamines, at least one coupler chosen from m-phenylenediamines, at least one cationic direct dye, and at least one oxidizing agent, see Abstract. Note that Rondeau's oxidation bases and couplers overlap in scope with those which may be present in Jones's compositions. Rondeau's cationic direct dyes include those of formula (I) as claimed, wherein Rondeau's preferred dye is equivalent to preferred dye (I31) as claimed, see col. 2, line 21-col. 3, line 64; and col. 6, line 30-col. 9, line 26. Rondeau teaches that it is known in the art to add direct dyes to oxidative dyeing compositions in order to vary the shades and obtain glints, see col. 1, lines 43-47. Rondeau teaches that the claimed cationic dyes result in various improvements over conventionally used direct dyes, particularly when used in the mixtures of the patentee, such as rich glints and good endurance properties, see col. 1, lines 54-66. Rondeau also teaches the addition of nonionic polymers and surfactants to the compositions, therefore suggesting the claimed direct dyes are compatible with Jones's required additives, see col. 10, lines 39-47.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a direct dye as claimed to the compositions of Jones, which contain oxidation bases, couplers, oxidants and nonionic amphiphilic polymers as claimed, because Jones teaches that direct dyes, including azo dyes and basic dyes, may be used in admixture with the patentee's oxidation dyes, and Rondeau teaches that the claimed cationic direct dyes result in improved endurance and glints when added to oxidative hair dyeing compositions, absent a showing otherwise. Furthermore, Jones's compositions may contain the same mixtures of oxidation bases and couplers taught by Rondeau, and Rondeau teaches that the direct dyes are compatible with nonionic polymers and surfactants (Jones's required additives). The Office holds the position that addition of a sunscreen agent to the compositions of Jones as modified by Rondeau would have been obvious to those skilled in the art because Jones teaches that any additives which enhance the properties of the compositions may be used, and sunscreens are conventional hair dyeing additives which enhance the composition by providing protection of the hair from sunlight.

Claims 1-5, 7-8, 14-31, 62-83 and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over de la Mettrie in view of Rondeau.

De la Mettrie, U.S. Patent No. 6,010,542, teaches hair dyeing compositions which contain oxidation dye precursors, optional couplers, and at least one nonionic amphiphilic polymer containing a fatty chain and a hydrophilic unit as claimed, see Abstract. The dye precursors and couplers include those as claimed, and may be present in the claimed amounts, see col. 4, line 6-col. 7, line 28. De la Mettrie teaches that the compositions may also contain direct dyes in order

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to enrich the shades with glints, including azo dyes, see col. 7, lines 29-33. The oxidizing agents include those as claimed, see col. 8, lines 34-38. The nonionic amphiphilic polymer is preferably selected from a group which includes the various nonionic amphiphilic polymers as claimed, wherein the polymer may be present in the claimed amounts, see col. 3, line 22-col. 4, line 5. De la Mettrie teaches that the compositions may also contain other conventional additives, and that the compositions have pH's as claimed, see col. 8, lines 13-33 and 43-46. De la Mettrie exemplifies a composition which contain a nonionic amphiphilic polymer, oxidation bases, coupler and oxidant in an aqueous medium as claimed, see Example 1. De la Mettrie does not teach the specifically claimed cationic direct dyes, or the claimed sunscreens.

Rondeau is relied above as teaching that the addition of the claimed cationic direct dyes of formula (I) to compositions for dyeing hair which contain at least one oxidation base, at least one coupler, and at least one oxidizing agent which may be the same as those present in de la Mettrie's compositions, results in various improvements over conventionally used direct dyes such as rich glints and good endurance properties. Rondeau is also relied upon as suggesting that the claimed direct dyes are compatible with de la Mettrie's nonionic polymers. Rondeau teaches that the cationic dyes should be used in the claimed amounts, see col. 9, lines 36-42.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a direct dye as claimed in the claimed amounts to the compositions of de la Mettrie, which contain oxidation bases, couplers, oxidants and nonionic amphiphilic polymers as claimed, because de la Mettrie teaches that direct dyes, including azo dyes, may be used in admixture with

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the patentee's oxidation dyes, and Rondeau teaches that the claimed cationic direct azo dyes result in improved endurance and glints when added to oxidative hair dyeing compositions in the claimed amounts, absent a showing otherwise. Furthermore, de la Mettrie's compositions may contain the same mixtures of oxidation bases and couplers taught by Rondeau, and Rondeau teaches that the direct dyes are compatible with nonionic polymers (de la Mettrie's required additives). The Office holds the position that the addition of a sunscreen agent to the compositions of de la Mettrie as modified by Rondeau would have been obvious to those skilled in the art because de la Mettrie teaches that any conventional additives may be used, and sunscreens are conventional hair dyeing additives which provide the benefit of protection of the hair from sunlight.

Please note that earlier published (1/3/98) FR 2,751,533, is equivalent to de la Mettrie relied upon above. Similarly, earlier published (6/26/98) FR 2,757,387, is equivalent to Rondeau relied upon above. The later U.S. patents were used in the above rejections for convenience because they are in the English language.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant is reminded that if any evidence is to be presented in accordance with 37 CFR 1.131 or 1.132, such evidence should be presented before final rejection in order to be considered timely.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caroline Liott whose telephone number is (703) 305-3703. The examiner can normally be reached on Mondays-Thursdays from 8:30am to 6:00pm, and on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached at (703)308-4708. All before final official faxes should be sent to (703) 305-7718. All after final official faxes should be sent to (703) 305-3599. All non-official faxes should be sent to (703) 305-6078.

Any inquiry of a general nature should be directed to the Group receptionist whose telephone number is (703) 308-0661.

C.D.L.  
September 28, 2000

  
CAROLINE D. LIOTT  
PRIMARY EXAMINER